

**Appropriation: Construction and Major Maintenance**  
**Activity: Line Item Construction and Maintenance**  
**FY 2002 Enacted: \$275.339 million**

Activity	2002 Enacted To Date	2003 Budget Request	Change From 2002 (+/-)
Line Item Construction and Maintenance	275,339	205,136	-70,203
<b>Total Requirements</b>	<b>275,339</b>	<b>205,136</b>	<b>-70,203</b>

### Authorization

16 U.S.C. 1 The National Park Service Organic Act  
 Public Law 105-178 The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)

### Overview

Activity provides for the construction, rehabilitation, and replacement of those facilities needed to accomplish the management objectives approved for each park.

### Applicable National Park Service Mission Goals

- Ia** Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.
- Ib** The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.
- Ila** Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.
- IIlc** Assisted through Federal funds and programs, the protection of recreational opportunities is achieved through formal mechanisms to ensure continued access for public recreation use.
- IVa** The National Park Service uses current management practices, systems, and technologies to accomplish its mission.

### Performance Goals

#### Goal IVa7. Line-item construction projects meet cost, schedule, and construction parameters

Target	Measure	Goals	
		Annual FY 2003	Long-term FY 2005
Construction performance	Percent of projects with 90% success rate in established performance measures: Facilities constructed = Facility requested Funding appropriated for project = Actual costs Projected schedules = Actual completion dates	100%	100%

### Activity Description

Based on the latest physical inventory data available, the National Park System contains approximately 7,580 administrative and public use buildings, 5,771 historic buildings, 4,389 housing units (includes approximately 1,000 historic housing units), 8,000 miles of roads, 763 miles of paved trails, 12,250 miles of unpaved trails, 1,861 bridges and tunnels, approximately 1,500 water and wastewater systems, 270 electrical generating systems, approximately 73,000 signs, 8,505 monuments, 250 radio systems, over 400 dams, more than 200 solid waste operations, and many other special features. Without the construction activity, access to park areas, the preservation and rehabilitation of historic and archeological structures, the construction of park recreation and operational facilities, the construction of museums and other interpretive structures, and the

provisions of safe and sanitary water and sewer systems would be impossible. Projects are also programmed to protect the existing Federal investment in such facilities through reconstruction and rehabilitation projects.

In 1995, a Department of the Interior taskforce completed a report entitled "Opportunity for Improvement of the National Park Service Line Item Construction Program: Definition, Control and Priority Setting." Since that time several actions have been taken to improve program management, direction, and to establish a comprehensive system of accountability and costs controls. The Service created a Servicewide Developmental Advisory Board to ensure that the objectives of the Servicewide development strategy are being met.

During FY 2000, the Service implemented guidelines for developing Capital Asset Plans (CAP) for major line item construction projects. Information in the CAP is used to track the performance of projects against the approved baselines and Servicewide goals. Projects failing to meet quarterly baseline goals are identified and appropriate steps are implemented to improve project performance.

**5-Year Maintenance and Capital Improvement Plan.** The Department of the Interior has developed its 5-Year Maintenance and Capital Improvement Plan to identify projects of the greatest need in priority order with special focus on critical health and safety and critical resource protection. For the fiscal year 2003 construction projects, complete project descriptions are provided in the Budget Justifications. The Department in a companion volume will provide the list showing all projects between from FY2003 through FY2007. Modifications to the lists will occur as they are annually reviewed for updating, addition of a new fifth year, and submission to Congress. Examples of circumstances that could change the list and the priority of projects on it are maintenance/construction emergencies such as severe storm damage, descriptions of work that change as a result of condition assessments (e.g., the scraping of boards for repainting reveal extensive wood deterioration requiring complete replacement), or identification of a failing sewer system. The Service is also placing greater emphasis on developing projects to improve structural fire protection and incorporating these projects into the 5-Year Maintenance and Capital Improvement Plan.

Ranking line item construction projects for FY2003 is accomplished through comparative factor analysis and is based on the relative advantages and costs of each project in accomplishing Service mission goals and objectives. This process, explained below, was used to update the 5-Year Deferred Maintenance/Construction Plan and project priority lists for fiscal years 2003 through 2007. All projects were reviewed to ensure that they would be consistent with Departmentwide priorities for repair, rehabilitation, and replacement of facilities and natural and cultural resources restoration. This review applies to all bureaus funded in the Interior and Related Agencies Appropriations Act and ensures effective management of construction and maintenance funding that can result in reductions of the most critical maintenance and resource needs.

**Recent Construction Program Management Improvement Initiatives.** In an effort to continually refine and improve the Service's construction program and practices, the NPS has implemented the June 1998 recommendations of the National Academy of Public Administration (NAPA). Examples of completed recommendations include:

- Creation of a central oversight office to monitor design and construction activities.
- Base funding of the Denver Service Center.
- Appointment of external advisors to review construction projects.
- Institutionalizing design cost caps.
- Training programs in the design process and construction procedures for superintendents and key park staff.
- Making cost-effective construction part of a superintendent's performance evaluation.
- Annual monitoring of design and construction costs.

In addition to the NAPA recommendations, in FY 2001, the Service completed initial work on three special initiatives to improve the Service's construction program performance.

1. Improved cost engineering and cost estimating. The Service has initiated a review of its cost engineering/estimating capabilities and has developed new cost guidelines for some facilities based on industry and agency standards. Additional cost modeling will continue in FY2002 and FY2003.
2. Facility planning criteria. Programming is underway to identify all major NPS facilities and formulate guidance to describe the functions of each facility, define when it is appropriate for certain facilities or buildings to be constructed, provide cost modules for each facility, and identify appurtenances needed to support the facility. The initial criteria model was completed in FY 2001. Based upon the initial model, most NPS facility types will have planning criteria models completed by FY 2003.
3. Square foot modeling. The Service is developing square footage models. The models will set guidelines for total building size based on usage, function and other factors. The initial square footage model was completed in FY 2001. Based upon the initial model, most NPS facility types will have square footage models completed by FY 2003.

**Servicewide Development Advisory Board.** The Servicewide Development Advisory Board (DAB), created in March 1998, ensures that Servicewide development strategies are met in a sustainable and cost-efficient context. The DAB consists of five Associate Directors, four Regional Directors and is supported by professional staff. Associated with and participating in, all DAB meetings are five non-NPS Advisors who bring an external perspective to the process. Projects reviewed by the Development Advisory Board include: line item construction projects; large recreation fee demonstration projects; road improvement projects involving realignment, new construction or extensive reconstruction, partnership projects; and unique construction activities.

The DAB holds meeting throughout the year. Projects presented are reviewed for technical requirements, sustainability, value-based decision making, and policy guidelines. The DAB reviews have resulted in extensive use of value analysis in the early planning/design phases of all projects. The application of value analysis principles has resulted in significant cost avoidance and improved benefits reducing individual project costs as they proceed through the design process.

### **Fiscal Year 2003 Line Item Construction and Major Maintenance Program**

The FY 2003 National Park Service Line Item Construction request represents a \$41 million decrease from the request for FY2002, reflecting a management emphasis on shifting resources towards repair, rehabilitation and preventive maintenance of existing facilities. Nevertheless, the line item construction and major maintenance program continues to be a major part of the President's initiative to reduce Servicewide backlogged infrastructure needs. Three projects totaling approximately \$24 million are being requested to improve security around memorials and monuments on the National Mall. These projects represent the very highest priorities for completion. The FY 2003 Line Item Construction and Maintenance Project list consists of 55 projects, which is shown in the following chart -- FY 2003 Comprehensive Construction Table -- alphabetically by park.

**Federal Lands Highways Program (FLHP).** President Bush is committed to managing the National Park Service's (NPS) deferred facility maintenance backlog. Deteriorated roads and bridges constitute over half the NPS deferred maintenance backlog identified 3 years ago. "A Blueprint for New Beginnings: a Responsible Budget for America's Priorities, FY 2002" also notes we need to focus "greater priority on alternative and innovative conservation tools." In concert with this theme, the NPS seeks to continue to pursue alternative transportation systems (i.e., buses, trams and ferries) that "lay lightly on the land" and are environmentally sensitive, conserve energy, reduce noise and air pollution, and improve public conservation awareness.

Public Law 105-178, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorized the Park Roads and Parkways Program funding levels to \$165 million annually through 2003. These Highway Trust Funds dollars address critically needed transportation needs in three categories:

- \$115 to \$125 million annually to prevent further deterioration of existing park roads and parkways infrastructure
- \$15 to \$30 million annually to complete the gaps in the congressionally authorized parkways
- \$5 to \$15 million annually for Alternative Transportation Systems Program (ATSP)

These three categories seek to address the existing road and bridge infrastructure needs, complete the new construction of congressionally authorized parkways and explore new and innovative means to manage the growing public popularity of our nation's parks.

Funding levels for these categories are adjusted to balance program priorities and legislative reductions. For example, the program has historically experienced a reduction of \$20 million annually due to Section 1102(f), Title 23, United States Code. By the end of TEA-21, NPS estimates some 20-30 projects or \$100 million worth of construction projects will have been delayed due to section 1102(f) reductions. In FY 2003, this reduction equates to holding off on road and bridge rehabilitation projects that would have otherwise helped to meet the President's commitment.

In FY 2002, the program did receive an increase made available through section 110 of title 23, USC, Revenue Aligned Budget Authority (RABA), for FY 2002 of \$21.3 million in the FY 2002 United States Department of Transportation Appropriation. These dollars will help support the President's commitment by funding road and bridge rehabilitation projects. In FY 2003, however, there will be no RABA dollars for distribution, due to declining gasoline tax revenue.

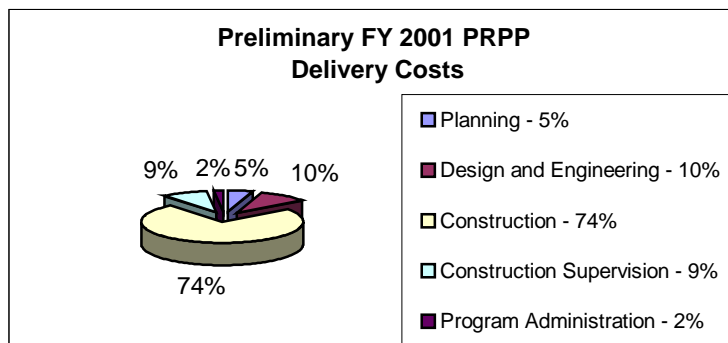
There are some 5,456 paved miles of public park roads and 1,804 structures (bridges, culverts and tunnels) under the jurisdiction of the NPS. In addition, ninety-five alternative transportation systems are in operation throughout the Service including trolleys, rail systems, canal boats, ferries, tour boats, cable cars, snow coaches, trams, buses, vans and Intelligent Transportation Systems such as traveler information systems, traffic management systems and entrance gate fast passes. Ten parks are integrated with the local public transit systems making public access via bus or shuttle more attractive and convenient for the visitor and park employees. In addition, eight parks own and operate their systems and a concessionaire operates the remaining 76 systems. The NPS transportation system serve recreational travel and tourism, protect and enhance natural resources, and provide sustained economic development in gateway communities surrounding parks.

NPS and the Federal Highway Administration (FHWA) have made progress in assessing park road condition and measuring progress in improving those conditions. In FY 2002, FHWA engineers estimate the NPS has approximately \$3.4 billion in road and bridge rehabilitation needs Servicewide. Several parkways such as Natchez Trace Parkway, Foothills Parkway and the Cumberland Gap National Historic Park Tunnel need to be completed. The Service is initiating a multi-year program of planning efforts and project development of alternative transportation systems in such parks as Acadia, Zion, Grand Canyon, Golden Gate and Yosemite National Parks.

More work is still needed to measure performance in managing roads and alternative transportation systems. However, accomplishments to report for FY 2001 and FY 2002 are:

1. For over a decade, the funding level for the Park Roads and Parkway Program (PRPP) was insufficient to keep the NPS road system from deteriorating. TEA-21 increased the PRPP funding level for the rehabilitation of roads and bridges based on a FHWA analysis that indexed a proposed funding level commensurate with the condition of roads and bridges. The TEA-21 targets are to provide enough funding to stabilize the system's condition. Today's condition data collected by the FHWA shows we are meeting targets by successfully stabilizing the system's condition. The next target is to begin to rebuild the system with a goal to have a road and bridge system that can be managed effectively and efficiently at a funding level to ensure safe and satisfactory driving conditions.

2. Program performance measures are tracked and goals are identified to guide the expenditure of PRPP funds. Performance measures include five key construction program categories (planning, engineering design, construction, construction supervision and administrative costs). We have reviewed industry standards for these categories to develop funding ceilings that help to effectively and efficiently manage limited funds. The chart below reflects the preliminary FY 2001 PRPP delivery costs which meet are established program ceilings.



NPS and FHWA are continuously reviewing better performance goals and measures to effectively and efficiently manage the program. For example, we plan to begin to use in FY 2003 the Facility Condition Index to help to better describe pavement and bridge condition and track performance.

With the Highway Trust Fund Reauthorization on the horizon for FY 2004, the NPS in cooperation with the FHWA are completing field focus meetings to gather input for how well the program has been meeting the national, regional and local needs. In addition, we solicit from the internal and external customers' opportunities for program improvements. Transportation inventory and assessment data is analyzed and optimized for life cycle cost to develop funding needs and options. The legislatively mandated study under section 3039, TEA-21, called "Study of Alternative Transportation Needs in National Parks and Related Public Lands" and completed by the United States Department of Transportation, identifies and supports the need for continuation of Alternative Transportation Systems Program. This gathering, analysis and organizing of information supports a program vision and strategic direction for the program as NPS seeks funding in the next Highway Trust Fund (HTF) Reauthorization.

Preliminary indications are that the NPS program will call out for a robust and ambitious rehabilitation program to meet the President's commitment to eliminate the deferred maintenance backlog for roads and bridges. To continue to protect the national monuments for future generation's enjoyment, ATSP needs to move to the next step and be well integrated with local, regional and state transportation systems to best service the public.

**Proposed FY 2003 Park Roads and Parkway Program**

<b>Park</b>	<b>Project</b>	<b>Amount</b>
<b>Category I – Park Roads and Bridge Repair/Rehabilitation Projects</b>		
Acadia National Park	Reconstruct Duckbrook Road	570
Assateague Island Nat'l Seashore	Overlay North Beach Road	2,460
Blue Ridge Parkway	Rehab Paved Waterways MP 352-360	360
Blue Ridge Parkway	Repair Bunches Bald and Lickstone Tunnels	670
Blue Ridge Parkway	Resurface Parkway, MP 121-136	3,510
Booker T Washington NM	Overlay VC Access Road	138
Canyon de Chelly NM	Rehab Four Park Roads	2,192
Cape Cod National Seashore	Overlay Cable Road	585
Chesapeake and Ohio Canal NHP	Resurface Great Falls Entrance Road	1,500
Crater Lake National Park	Rehab Highway 62 West	5,495
Delaware Water Gap NRA	Rehab Route 209, Phase II	1,500
Denali National Park	Rehab Park Road Milepost 70-72	1,520
Gateway Nat'l Recreation Area	Elevate Hartshorne Drive	2,500
George Washington Memorial Pkwy	Rehab Memorial Drive, Circle and Ramps	2,000
Golden Gate NRA	Rehab East Road	984
Golden Gate NRA	Rehab McCullough Road	787
Grand Canyon National Park	Rehab Cape Royal Road	1,145
Grand Teton National Park	Rehab North Park Road at Lake Shore	750
Grand Teton National Park	Rehab Outside Highway	600
Grand Teton National Park	Rehab Teton Park Road at Spaulding	1,130
Great Smoky Mountains NP	Resurface Laurel Creek/Treemont	2,000
Intermountain Region	Chip and Seal Regional Roads	500
Joshua Tree National Park	Reconstruct Route 12	4,593
Lake Mead NRA	Rehab North Shore Road MP 19-26	5,314
Mammoth Cave National Park	Improve Safety of Environ. Institute Access	1,000
Mammoth Cave National Park	Reconstruct Rt. 10 - Sloan's Crossing	2,500
Mammoth Cave National Park	Rehab Rout 15 - Chaumont to Visitor Center	1,800
Mesa Verde National Park	Correct Entrance Failures Phase II	7,200
Natchez Trace Parkway	Rehab Parkway MP 73-87 Phase II	910
Natchez Trace Parkway	Replace 4 Bridges	4,000
National Capital - Central	Rehab Inlet Bridge	300
National Capital - Central	Rehab Lincoln Circle and Approaches	2,200
National Capital - Central	Repair Outlet Bridges	600
Olympic National Park	Replace Culverts on North Shore Road	800
Organ Pipe Cactus NM	Rehab Rout3 10, Hwy 85	151
Ozark National Scenic Riverways	Rehab Peavine Road	1,900
Petersburg National Battlefield	Overlay Route 500 Tour Road	396
Richmond Nat'l Battlefield Park	Overlay Chickahominy Bluffs Rd.	385
Rock Creek Park	Repair Rd at Thompson's Boat Center	500
Rock Creek Park	Repair Rock Cr. And Potomac Parkway	3,500
Rocky Mountain National Park	Reconstruct Bear Lake Road Phase II	4,300
Virgin Islands National Park	Construct Stone Masonry Guardwall	240
Virgin Islands National Park	Rehab North Shore Road	2,360
Yellowstone National Park	Reconstruct Gibbon Falls to Tanker Curve Roads	10,000
Yellowstone National Park	Rehab North Rim and Canyon Village Roads	1,600
Yosemite National Park	Replace South Fork Merced River Bridge	3,200
<b>Subtotal, Category I Projects</b>		<b>92,645</b>

**Proposed FY 2003 Park Roads and Parkway Program**

<b>Park</b>	<b>Project</b>	<b>Amount</b>
Supervision		9,265
Administration, planning, design and engineering		11,087
<b>Total, Category I</b>		<b>112,997</b>
<b>Category II – Congressionally Authorized Parkways/New Construction</b>		
Natchez Trace Parkway	Construct Parkway, Project 3X	14,500
Supervision		1,450
Design and Engineering		2,610
<b>Total, Category II</b>		<b>18,560</b>
<b>Category III – Alternate Transportation Modes: Transportation Implementation</b>		
Acadia National Park	Alt Trans. Infrastructure Improvements	482
Cuyahoga Valley National Park	Railroad Station Improvements	553
Fort Clapsop National Memorial	Bus, Pedestrian and Parking Facilities	950
Grand Canyon National Park	Transit and Parking Facilities	3,300
North Cascades National Park	Floating Dock/Visitor Station	432
Santa Monica Mountains Natl' Rec Area	Phase II Shuttle System Facilities	225
Voyageurs National Park	Alternative Fuel Tour Boat	475
Yellowstone National Park	Traveler/Weather Information System	605
Yosemite National Park	Transit Demonstration Service	300
<b>Subtotal, Category III Projects</b>		<b>7,322</b>
Transportation Planning, Program Support and Contingency		4,178
<b>Total, Category III</b>		<b>11,500</b>
<b>Grand Total All Categories</b>		
Category I		112,997
Category II		18,560
Category III		11,500
<b>Sub-Total, Categories I, II, and III</b>		<b>143,057</b>
FHWA Reductions*		-197
<b>Grand Total, Categories I, II, and III</b>		<b>142,860</b>

\*A 1.5 percent reduction in Federal Highway Administration overhead costs and an estimated 12.1 percent reduction due to Section 1102(f) of Public Law 105-178 is anticipated for this program in FY 2003.